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EIGHTH ANNUAL REPORT

OF

THE TRUSTEES

OF THE

MASSACHUSETTS

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STATE SANATORIUM

AT RUTLAND.

SEPTEMBER 30, 1904.



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70

AT BURLINGTON

## CONTENTS.

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	PAGE
TRUSTEES AND OFFICERS, . . . . .	5
REPORT OF THE TRUSTEES, . . . . .	7
REPORT OF THE SUPERINTENDENT AND TREASURER,. . . . .	12
REPORT OF THE EXAMINING AND VISITING PHYSICIANS, . . . . .	24
LIST OF WAGES, . . . . .	29



## OFFICERS

OF THE

## MASSACHUSETTS STATE SANATORIUM.

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JOHN C. HAMMOND, . . . . .	NORTHAMPTON.
A. W. ESLEECK, . . . . .	HOLYOKE.
W. E. PARKHURST, . . . . .	CLINTON.
J. P. RAND, M.D., . . . . .	MONSON.
ALBERT C. GETCHELL, M.D., . . . . .	WORCESTER.

### EXAMINING AND VISITING PHYSICIANS.

VINCENT Y. BOWDITCH, M.D., . . . . .	BOSTON.
HERBERT C. CLAPP M.D., . . . . .	BOSTON.

### RESIDENT OFFICERS.

WALTER J. MARCLEY, M.D., . . . . .	<i>Superintendent and Treasurer.</i>
MARY E. THRASHER, . . . . .	<i>Matron and Superintendent of Nurses.</i>
HENRY B. DUNHAM, M.D., . . . . .	<i>Assistant Physician.</i>
GEORGE N. LAPHAM, M.D., . . . . .	<i>Assistant Physician.</i>
CHARLES E. CARROLL, . . . . .	<i>Bookkeeper.</i>
GEORGE W. DERRICK, M.D., . . . . .	<i>Second Assistant Physician.</i>
RALPH O. WAITT, . . . . .	<i>Record Clerk.</i>
WILLIAM F. MOORE. . . . .	<i>Chief Engineer.</i>
FREDERICK H. DRURY, . . . . .	<i>Farmer.</i>



# Commonwealth of Massachusetts.

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## REPORT OF TRUSTEES.

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*To His Excellency the Governor of the Commonwealth and to the Honorable Council.*

The trustees of the Massachusetts State Sanatorium respectfully submit their eighth annual report.

The report of the superintendent and treasurer is endorsed by the Board. The same officers continue in the local management, and have been, without exception, satisfactory. To their skill and tact is due much of the success of the sanatorium.

As bearing upon the administration of the sanatorium and as a very important contribution to the whole question of the prevention and cure of tuberculosis, very special attention is called to the annexed report of Drs. Clapp and Bowditch, who continue to be visiting and chief examining physicians. The cordial and appreciative interest of the State Board of Charity in this part of the work for the prevention and cure of tuberculosis should have special mention.

### NEW COTTAGES AND NEW HEATING PLANT.

Under the provisions of the statute of 1903, chapter 445, and under chapter 75 of the Resolves of 1904, the Board have completed two of the brick cottages, and the same are fully equipped and patients would have been received at the date of this report except that there was an unexpected delay in the completion of the contract for heating the buildings. We have also nearly completed a second dining room, by the use of which sufficient accommodations will be provided for the expected increase in number of patients. A separate building

to contain the heating plant, with the laundry in the second story, is under construction. The new boilers are being placed in position. It is expected that the same will be in readiness for use during the inclement weather of the winter and that the old heating plant will be sufficient for the needs of the institution up to that time.

#### PLACES OF EXAMINATION.

The office in Boston has been removed and is now at the new out-patient department of the Massachusetts General Hospital. Applicants for admission are examined there on Wednesdays and Saturdays, at 1.30 P.M.

Also at the sanatorium on any day except Sunday.

At the Worcester City Hospital on Wednesdays and Saturdays, at 9 A.M.

At Lowell by Dr. B. H. Pillsbury, 58 Kirk Street.

At Fall River by Dr. A. S. MacKnight, 355 N. Main Street.

At Springfield by Dr. E. A. Bates, 57 Chestnut Street.

At Pittsfield by Dr. J. F. A. Adams, 114 Wendell Avenue.

Time at each of the last four places, on Wednesdays and Saturdays, at 2 P.M.

No charge is made to the applicants.

The system of local examiners is working well.

#### FARM BUILDINGS.

The need of suitable farm buildings to replace the very old, inconvenient and insufficient buildings which were on the land when purchased grows more and more urgent. The old farm barn, the only stable for nine horses and forty cows, stands at the very front of the lawn in front of the sanatorium. It is unsightly and unsuitable. It should not be enlarged. It is absolutely necessary to increase our own milk supply. We deem it expedient to double it; this cannot be done unless a new barn is provided. No other State institution is so destitute in this respect.

There is also required a house for the farmer, with an ell having sleeping rooms for farm laborers.

The amount asked for farm buildings and farmer's house, as requested in previous reports, is \$15,000.



## PURCHASE OF ADDITIONAL LAND.

Pursuant to authority given by chapter 85 of the Resolves of 1904, the sanatorium has purchased from Charles R. Bartlett about 130 acres of land for the sum of \$10,000. It is and will be more and more valuable as an addition to sanatorium grounds.

## NEW ROAD.

Economy in transportation between the sanatorium and the railroad station at Muschopauge requires a much better highway than now exists. The Board have invited the Massachusetts Highway Commission to examine the matter. The commission have made surveys and submitted a plan for a new road which avoids a difficult hill. It extends from a point on the State land near the north-westerly end of Muschopauge Lake to a point on the present road to the station. The plan also contemplates improving the road from that point to the station, so that the whole shall be up to the standard of State road.

The commission report to the Board of Trustees that, it being aside from the general plan of State highways, it is not within their province to build it.

We are authorized to quote them as thinking that an appropriation of \$4,000 for such a new road would be economical on the part of the State. While the saving thereby cannot be mathematically determined, the members of the Highway Commission think, and the trustees think, that the whole expense would be saved in a short term of years by the saving in the expense of hauling coal and other freight. All transportation to and from the sanatorium is over this road.

As we understand it arrangement can be made so that the town will, if necessary, lay out the part of the proposed road which is on a new location and the State need be at no expense, or merely nominal expense, for land damages. The town of Rutland cannot fairly be called upon to build this road. The benefit will be almost wholly to the State Sanatorium. For this purpose the trustees ask an appropriation of \$4,000.

THE IMMEDIATE LOCALITY BENEFITED NOT INJURED BY THE  
SANATORIUM.

The question is often asked, How does the presence of the sanatorium affect the town of Rutland, in which it is located? The information obtained by inquiry of town authorities may be valuable.

The report tends to show that the town has benefited largely, and has not suffered at all in health. The assessors' books show that the entire 365 acres now belonging to the sanatorium was taxed on a valuation of \$14,000. Since the sanatorium opened in October, 1898, new houses and improvements, with a tax valuation of \$30,000, have been built. The demand for them is attributed directly to the sanatorium. The gain from this source in valuation is \$16,000. Farms, small homesteads and village houses have increased in value; they are now at all times in demand. There is also an unprecedented demand for skilled and unskilled labor. On the assessors' books the total valuation of the town in the current year is \$704,183; in 1895, before the sanatorium acquired any land, it was \$518,180, — a gain of \$186,000.

Because the sanatorium must have a water supply and would be a customer, the town was enabled to put in a public water system. About one-half the rental comes from the sanatorium, enabling the system to be self-supporting; but for this aid a public water supply to Rutland would have been impossible.

The number of inhabitants has increased. The exact figures to date are not at hand. In 1895 it was 978 and had not exceeded 1,060 in twenty years; in 1900 it was 1,334; in 1904 it is estimated at 1,500. The number of taxable polls was in 1895 268; in 1904 it was 333, an increase of 65 polls.

The public health has not suffered. The number of deaths in the town from tuberculosis (exclusive of those who came to the town to be treated for the disease) for the whole time since patients were first received, viz., 1899 to 1904 inclusive, six years, was 8; for the period of six years immediately preceding (1893 to 1898 inclusive), 11; for the period of six years 1887 to 1892 inclusive, 11; for the period of six years 1881 to 1886 inclusive, 14. The town has thus averaged for the

last twenty-four years two deaths per year from tuberculosis in a population averaging about 1,000. During the last six years, with increased population, the deaths from this cause have been less than before.

*Needs for the Next Year.*

Maintenance, allowing for the increased number of patients, .	\$105,000 00
Farm buildings, . . . . .	15,000 00
New road, . . . . .	4,000 00

JOHN C. HAMMOND,  
A. W. ESLEECK,  
WELLINGTON E. PARKHURST,  
J. P. RAND,  
ALBERT C. GETCHELL,

*Trustees.*

## REPORT OF SUPERINTENDENT AND TREASURER.

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*To the Trustees of the Massachusetts State Sanatorium.*

I have the honor to present herewith my report for the year ending Sept. 30, 1904.

During this year 1,754 applicants have been examined, of whom 817, or 46 per cent., were considered favorable for admission; 639, or 36 per cent., unfavorable, and 298, or 17 per cent., doubtful. A certain number of these doubtful cases, after subsequent examinations, were favorably considered and admitted. It has seemed wise to keep all beds full, if possible, although to accomplish this it has been necessary to admit certain cases who were advanced in the disease, and whose prospects of recovery were not good. The report of the visiting physicians and the figures given above show a deplorable percentage of unfavorable applicants and of cases admitted. It is to be most earnestly hoped that with a wider spread knowledge concerning the requirements of admission to the sanatorium, a much larger percentage of really incipient cases will be sent to our examiners, and thus the benefit of sanatorium treatment will be given to a greater number of individuals at a time when there is more hope of permanent recovery. Many applicants are sent by former patients, which shows one phase of the educational value of the institution. From time to time old patients apply for readmission, but unless there is a vacancy for which no new application is filed I have not deemed it wise to consider favorably a readmission.

It has been necessary to discharge 16 patients during the year for violation of rules. The most serious offence is the drinking of liquor. Very little alcoholic liquor is prescribed in the treatment of the disease. Generally speaking it is considered harmful to consumptives. Moreover, liquor drinking is prejudicial to the *morale* of the institution, and on this ground also cannot be allowed. For the good of the patient

and of the institution it is of the utmost importance that the rule against the drinking of liquor be rigidly enforced.

*Admissions and Discharges.*

PATIENTS.	Males.	Females.	Totals.
Number of patients in the sanatorium Oct. 1, 1903, .	136	125	261
Number admitted within the year, . . . . .	342	345	687
Number discharged during the year, . . . . .	341	351	692
Number of deaths, . . . . .	2	2	4
Patients remaining in the sanatorium Sept. 30, 1904, .	135	117	252
Daily average number of patients, . . . . .	137	120	257

*Residence of Patients admitted.*

COUNTIES.	Patients.	COUNTIES.	Patients.
Suffolk, . . . . .	278	Plymouth, . . . . .	20
Middlesex, . . . . .	130	Hampshire, . . . . .	15
Essex, . . . . .	59	Berkshire, . . . . .	13
Worcester, . . . . .	53	Barnstable, . . . . .	2
Bristol, . . . . .	41	Franklin, . . . . .	1
Hampden, . . . . .	41	Dukes, . . . . .	1
Norfolk, . . . . .	33		

*Civil Condition.*

	Males.	Females.	Totals.
Unmarried, . . . . .	199	194	393
Married, . . . . .	135	135	270
Widowed, . . . . .	6	14	20
Divorced, . . . . .	2	2	4



*Occupations.*

	Males.	Females.		Males.	Females.
Accountant, . . .	1	-	Elevator men, . . .	2	-
Actor, . . . .	1	-	Engineers, marine, .	2	-
Advertising agent, .	1	-	Engraver, . . . .	1	-
Attendants, . . . .	2	-	Expressmen, . . . .	2	-
Baggage man, . . .	1	-	Factory and mill oper-		
Barber, . . . . .	1	-	atives, . . . . .	86	51
Bartenders, . . . .	4	-	Farmers, . . . . .	3	-
Blacksmiths, . . . .	6	-	Firemen, . . . . .	3	-
Bookkeepers, . . . .	7	3	Gardener, . . . . .	1	-
Butchers, . . . . .	3	-	Home work, . . . .	-	42
Buyers, . . . . .	2	-	Hostler, . . . . .	2	-
Brakemen, . . . . .	2	-	Housewives, . . . .	-	115
Carpenters, . . . . .	4	-	Hackman, . . . . .	1	-
Cigar maker, . . . .	1	-	Inspector, . . . . .	1	-
Clerks, . . . . .	31	7	Insurance, . . . . .	1	-
Coachman, . . . . .	1	-	Janitors, . . . . .	3	1
Collector, . . . . .	1	-	Jeweller, . . . . .	1	-
Conductors, electric			Laborers, . . . . .	6	-
railway, . . . . .	5	-	Lamp lighter, . . . .	1	-
Contractors, . . . .	2	-	Laundresses, . . . .	-	4
Cook, . . . . .	1	-	Letter carriers, . . .	3	-
Dentist, . . . . .	1	-	Longshoreman, . . . .	1	-
Domestics, . . . . .	1	24	Machinists, . . . . .	13	-
Draughtsman, . . . .	1	-	Manicurist, . . . . .	-	1
Dressmakers, . . . .	-	11	Mason, . . . . .	1	-
Electricians, . . . .	2	-	Masseuse, . . . . .	-	1

*Occupations — Concluded.*

	Males.	Females.		Males.	Females.
Marine, . . . .	1	-	Piano tuner, . . . .	1	-
Messenger, . . . .	1	-	Real estate agent, . . . .	1	-
Metal worker, . . . .	1	-	Roofer, . . . .	1	-
Milliners, . . . .	-	3	Salespeople, . . . .	7	5
Motormen, . . . .	4	-	Seamstresses, . . . .	-	2
Musician, . . . .	1	-	Shipper, . . . .	1	-
None, . . . .	-	4	Steam fitters, . . . .	2	-
Nursemaids, . . . .	-	5	Stenographers, . . . .	3	12
Nurses, student, . . . .	-	2	Silversmith, . . . .	1	-
Nurses, trained, . . . .	-	2	Soldier, . . . .	1	-
Newsboy, . . . .	1	-	Storekeepers, . . . .	6	-
Newspaper reporters, . . . .	3	-	Stone cutters, . . . .	2	-
Painters, . . . .	5	-	Students, . . . .	18	22
Plumbers, . . . .	4	-	Tailors, . . . .	16	-
Peddlers, . . . .	5	-	Teachers, . . . .	1	7
Paper hangers, . . . .	2	-	Teamsters, . . . .	16	-
Photographer, . . . .	1	-	Telegraph operators, . . . .	2	3
Porters, . . . .	2	-	Telephone operators, . . . .	-	4
Printers, . . . .	8	-	Travelling salesmen, . . . .	4	-
Professional singer, . . . .	-	1	Waiters, . . . .	3	13
Pugilist, . . . .	1	-			

Since the opening of the sanatorium six years ago, 2,843 patients have been treated.

Our daily menu is important. I give below the dietary for the week just ended :—

*Friday, September 23.*

*Breakfast.* — Fruit, oatmeal with milk, creamed codfish, baked potatoes, corn muffins, bread and butter, cereal coffee, milk *ad lib.*

*Dinner.* — Soup, baked bluefish, cold meat, potatoes and one other vegetable, bread and butter, baked custard.

*Supper.* — Hominy with milk, baked beans and brown bread, bread and butter, chocolate layer cake, milk *ad lib.*

*Saturday, September 24.*

*Breakfast.* — Wheat flakes with milk, steak, potatoes, wheat muffins, bread and butter, cereal coffee, milk *ad lib.*

*Dinner.* — Soup, roast lamb, potatoes and one other vegetable, bread and butter, Indian pudding.

*Supper.* — Rice with milk, creamed ham, baked potatoes, waffles, bread and butter, milk *ad lib.*

*Sunday, September 25.*

*Breakfast.* — Farina with milk, chops, potatoes, bread and butter, graham muffins, cereal coffee, milk *ad lib.*

*Dinner.* — Soup, chicken pie, potatoes and one other vegetable, celery, bread and butter, tapioca cream.

*Supper.* — Cracked wheat with milk, oyster stew, crackers, bread and butter, jumbles, milk *ad lib.*

*Monday, September 26.*

*Breakfast.* — Hominy with milk, eggs and bacon, potatoes, corn bread, bread and butter, baked apples, cereal coffee, milk *ad lib.*

*Dinner.* — Soup, roast beef, potatoes and one other vegetable, bread and butter, banana jelly.

*Supper.* — Wheat flakes with milk, cold meat, creamed potatoes, bread and butter, fruit sauce, milk *ad lib.*

*Tuesday, September 27.*

*Breakfast.* — Cracked wheat with milk, steak, potatoes, bread and butter, wheat muffins, cereal coffee, milk *ad lib.*

*Dinner.* — Soup, roast lamb with mint sauce, potatoes and one other vegetable, bread and butter, fresh fruit.

*Supper.* — Corn meal with milk, meat hash, bread and butter, rolls, baked apples, milk *ad lib.*

*Wednesday, September 28.*

*Breakfast.* — Farina with milk, eggs and bacon, potatoes, bread and butter, corn muffins, cereal coffee, fresh fruit, milk *ad lib.*

*Dinner.* — Soup, roast beef, potatoes and one other vegetable, bread and butter, Spanish cream.

*Supper.* — Hominy with milk, cold meat, Lyonnaise potatoes, bread and butter, fruit sauce, milk *ad lib.*



*Thursday, September 29.*

*Breakfast.* — Wheat flakes with milk, chops, potatoes, bread and butter, graham muffins, cereal coffee, milk *ad lib.*

*Dinner.* — Soup, steak, baked sweet potatoes, one other vegetable, bread and butter, apple tapioca pudding.

*Supper.* — Cracked wheat with milk, egg salad, bread and butter, baking-powder biscuit with maple syrup, milk *ad lib.*

In addition to the above regular meals, lunches of raw eggs and milk are served at 10.30 A.M. and at 3 and 8.30 P.M. By special order of the physician, extra chops, steak or eggs are served at the regular meal. For a certain number of patients the dietitian plans a regular light-house diet.

The expense for the past year for food materials per day per patient has been 57 cents. The daily ration for all inmates, patients and employees, has averaged 41 cents.

Our weather bureau, established in 1902, is in constant touch with the official meteorologists in Boston, to whom we are indebted for valuable suggestions and assistance. The appended report of 1903 is endorsed by them.

*Weather Record for 1903.*

MONTH.	Mean Maximum.	Mean Minimum.	Mean.	Total Inches Precipitation	Mean Barometer.	Total Wind Movement.	Mean Humidity.	NUMBER OF DAYS.		
								Clear.	Partly Cloudy.	Cloudy.
January, . .	38.06	15.23	26.65	2.60	29.840	9,581	82.44	9	9	13
February, . .	-	18.32	-	3.71	-	9,248	80.48	14	4	10
March, . . .	-	31.00	-	8.31	-	8,814	84.06	7	10	14
April, . . .	55.90	34.43	45.00	3.32	29.863	8,923	65.91	8	13	9
May, . . .	69.26	46.68	59.97	1.35	30.098	6,774	60.30	13	12	6
June, . . .	66.17	50.13	58.15	8.78	29.938	6,776	81.75	3	8	19
July, . . .	76.84	57.81	67.32	3.36	29.846	6,829	74.80	5	18	8
August, . .	68.90	53.39	59.11	4.06	29.910	6,147	79.40	3	17	11
September, .	72.39	52.56	62.72	2.87	30.315	4,970	74.91	12	14	4
October, . .	65.29	40.97	53.08	3.98	29.953	8,126	79.48	11	8	12
November, .	49.57	26.03	37.86	2.77	29.932	7,058	62.08	16	6	8
December, .	32.12	13.40	22.86	2.05	29.953	7,028	81.63	14	5	12

The additional farm land purchased this year brings our total acreage up to 365, and provides much-needed fields for

tillage and pasturage. About 15 acres of the new land were put under cultivation this past summer and yielded well in vegetables.

The farm account is as follows :—

DR.	
Blacksmith, . . . . .	\$130 15
Board of men, at \$15 per month, . . . . .	1,365 00
Fertilizers and seeds, . . . . .	845 21
Grain and feed for stock, . . . . .	3,640 36
Harness, . . . . .	23 19
Labor not on pay roll, . . . . .	443 04
Live stock :—	
Cows, . . . . .	925 00
Horse, . . . . .	200 00
Miscellaneous supplies and repairs, . . . . .	189 94
Pay roll, . . . . .	3,665 47
Tools, . . . . .	156 66
Veterinary surgeon, . . . . .	74 60
Wagons, etc., . . . . .	67 30
Waste from sanatorium kitchen, . . . . .	200 00
	<hr/>
	\$11,925 92
CR.	
Board of driving horses, at \$15 per month, . . . . .	\$810 00
Grease sold, . . . . .	222 54
Labor for sanatorium,—putting in ice, hauling provisions from station, etc., . . . . .	887 03
Live stock sold :—	
Cows, . . . . .	131 00
Hogs, . . . . .	949 75
Horse, . . . . .	90 00
Milk, 120,078 quarts, at 4½ cents, . . . . .	5,103 31
Vegetables supplied, . . . . .	628 54
Hay and feed on hand as estimated Oct. 1, 1904, . . . . .	1,188 00
30 acres of newly purchased land ploughed, cleared of stones and seeded (no return the present year), at \$15 per acre, . . . . .	450 00
It is estimated that one-half the farmer's time is devoted to general care of outside matters, such as transportation of coal and other freight, the ice supply, care of filter beds, etc.; the farm is therefore credited one-half his salary, . . . . .	400 00
It is estimated that there should be credited the farm one-half the fertilizer used on the land this year, partly barn manure, partly commercial fertilizers, which remain as benefit for future years, . . . . .	400 00
The live stock on the farm (cows and hogs) by cash expenditures have been increased in value as per inventories of 1903 and 1904, . . . . .	534 00
Deficit, . . . . .	131 75
	<hr/>
	\$11,925 92

All the fields which have been under cultivation receive each year much care in the removal of stones and general improvement, thus enhancing the value of tillage land, increasing its productive capacity, and greatly improving the appearance of the institutional property. For this no credit in dollars and cents has been given the farm in the foregoing account.

#### PRODUCTS OF THE FARM.

##### *Delivered to the Sanatorium during the Year.*

Apples, 30 barrels, at \$1, . . . . .	\$30 00
Apples, 7 barrels, at \$1.75, . . . . .	12 25
Beans, shell, 21½ bushels, at \$0.90, . . . . .	19 35
Beans, string, 5 bushels, at \$0.75, . . . . .	3 75
Beans, wax, 9 bushels, at \$0.80, . . . . .	7 20
Beets, 8 bushels, at \$0.50, . . . . .	4 00
Beet greens, 8 barrels, at \$1.20, . . . . .	9 60
Carrots, 5 bushels, at \$0.65, . . . . .	3 25
Cabbage, 19 barrels, at \$1, . . . . .	19 00
Corn, sweet, 440 dozen, at \$0.15, . . . . .	66 00
Cucumbers, 17,454, at \$0.00½, . . . . .	87 27
Lettuce, 92 dozen, at \$0.50, . . . . .	46 00
Pears, 3 bushels, at \$1.25, . . . . .	3 75
Peas, 28 bushels, at \$1, . . . . .	28 00
Potatoes, 307½ bushels, at \$0.80, . . . . .	246 00
Radishes, 20 bushels, at \$0.30, . . . . .	6 00
Rhubarb, 743 pounds, at \$0.01½, . . . . .	9 29
Summer squash, 6½ barrels, at \$0.75, . . . . .	4 88
Swiss chard, 11 barrels, at \$0.75, . . . . .	8 25
Tomatoes, 6 bushels, at \$1.75, . . . . .	10 50
Turnips, 7 bushels, at \$0.60, . . . . .	4 20
Total, . . . . .	<hr/> \$628 54

##### *On Hand Oct 1, 1904.*

Carrots and beets, . . . . .	\$75 00
Clover, 2 tons, at \$10, . . . . .	20 00
Corn fodder, 9 acres, at \$20, . . . . .	180 00
Hay, 4 tons, at \$9, . . . . .	36 00
Hay, 20 tons, at \$14, . . . . .	280 00
Hay, 20 tons, at \$15, . . . . .	300 00
Hungarian, 2 tons, at \$10, . . . . .	20 00
Mangel-wurzel, ½ acre, . . . . .	75 00
Millet, . . . . .	6 00
Oats, fodder, 2 tons, at \$8, . . . . .	16 00
Oats, fodder, 3 tons, at \$10, . . . . .	30 00
Rye, 50 bushels, at \$1, . . . . .	50 00
Rye straw, 5 tons, at \$20, . . . . .	100 00
Total, . . . . .	<hr/> \$1,188 00

The financial statement for the year is as follows :—

Cash receipts on hand Oct. 1, 1903, as per seventh annual report, . . . . .	\$4,194 89
Received from State Treasurer, . . . . .	207,736 09
Received from patients for board and treatment, . . . . .	41,774 65
Received from cities and towns for support of patients, . . . . .	1,913 45
Received from State, soldiers' relief, and from charitable associations for support of patients, . . . . .	2,064 35
Received from patients for hospital and cuspidor supplies, . . . . .	2,352 74
Received from patients for freight and express, . . . . .	156 92
Received from patients for telephone and telegraph, . . . . .	114 69
Received from patients for stationery and office supplies, . . . . .	282 04
Received from patients for sundries, . . . . .	446 65
Received from sale of farm products, . . . . .	1,973 98
Received from sale of grease, . . . . .	843 94
Received from sale of other merchandise, . . . . .	431 06
Received as interest on bank balance, . . . . .	78 40
	<hr/>
	\$264,363 86

#### EXPENSES.

Salaries and wages, . . . . .	\$34,687 19
Food :—	
Beans, . . . . .	\$55 37
Bread and crackers, . . . . .	104 05
Butter and butterine, . . . . .	3,080 65
Cereals, rice, meal, etc., . . . . .	452 23
Cheese, . . . . .	97 38
Eggs, . . . . .	6,062 94
Fish, . . . . .	699 48
Flour, . . . . .	484 02
Fruit, . . . . .	1,191 94
Meats, . . . . .	21,752 02
Milk, . . . . .	3,685 19
Molasses, . . . . .	39 95
Sugar, . . . . .	1,129 99
Sundries, . . . . .	2,499 79
Tea, coffee, broma and cocoa, . . . . .	525 12
Vegetables, . . . . .	2,195 15
	<hr/>
	44,055 27
Furnishings :—	
Beds, bedding, table linen, etc., . . . . .	\$1,384 87
Brushes, brooms, etc., . . . . .	136 94
Carpets, rugs, etc., . . . . .	30 03
Crockery, glassware, cutlery, etc., . . . . .	801 22
Furniture and upholstery, . . . . .	581 37
	<hr/>
Amounts carried forward, . . . . .	\$2,934 43
	<hr/>
	\$78,742 46

<i>Amounts brought forward,</i> . . . . .	\$2,934 43	\$78,742 46
Kitchen furnishings, . . . . .	539 35	
Sundries, . . . . .	134 70	
Woodenware, buckets, pails, etc., . . . . .	70 28	
	<hr/>	3,678 76
Heat, light and power:—		
Coal, . . . . .	\$6,774 29	
Electricity, . . . . .	112 80	
Oil, . . . . .	166 92	
Sundries, . . . . .	208 91	
Wood, . . . . .	114 00	
	<hr/>	7,376 92
Repairs and improvements:—		
Cement, lime and plaster, . . . . .	\$51 59	
Doors, sashes, etc., . . . . .	3 50	
Electrical work and supplies, . . . . .	46 89	
Hardware, iron, steel, etc., . . . . .	282 08	
Lumber, . . . . .	333 15	
Mechanics and laborers (not on pay roll), . . . . .	55 30	
Paints, oils, glass, etc., . . . . .	202 43	
Plumbing, steam fitting and supplies, . . . . .	319 53	
Roofing and materials, . . . . .	21 69	
Sundries, . . . . .	25 17	
	<hr/>	1,341 33
Farm, stable and grounds:—		
Blacksmith and blacksmith's supplies, . . . . .	\$165 10	
Carriages, wagons and repairs, . . . . .	43 55	
Fertilizers, vines, seeds, etc., . . . . .	937 51	
Harness and repairs, . . . . .	52 58	
Hay, grain, etc., . . . . .	3,698 08	
Labor (not on pay roll), . . . . .	373 49	
Live stock:—		
Cows, . . . . .	805 00	
Horses, . . . . .	400 00	
Sundries, . . . . .	209 60	
Tools, farm machines, etc., . . . . .	94 94	
	<hr/>	6,779 85
Miscellaneous:—		
Books, periodicals, etc., . . . . .	\$30 50	
Chapel services and entertainments, . . . . .	220 50	
Freight, expressage and transportation, . . . . .	2,836 70	
Hose, etc., . . . . .	11 00	
Boston office, . . . . .	202 25	
Medical attendance, nurses, etc. (extra), . . . . .	18 00	
Medicines and hospital supplies, . . . . .	2,478 40	
Postage, . . . . .	540 88	
Printing and printing supplies, . . . . .	276 85	
Cuspidor supplies, . . . . .	2,658 91	
	<hr/>	
<i>Amounts carried forward,</i> . . . . .	\$9,273 99	\$97,919 32



<i>Amounts brought forward,</i> . . . . .	\$9,273 99	\$97,919 32
Soap and laundry supplies, . . . . .	999 81	
Stationery and office supplies, . . . . .	663 01	
Sundries, . . . . .	2,480 26	
Telephone and telegraph, . . . . .	592 90	
Travel and expenses (officials), . . . . .	1,398 99	
Water, . . . . .	833 33	
		16,242 29
Additional land, Resolves 1904, chapter 85, . . . . .		10,000 00
Extraordinary expense, . . . . .		4,914 17
Extraordinary expense, special appropriations, . . . . .		67,666 75
Sent to State Treasurer, cash receipts on hand Sept. 30, 1903, . . . . .		4,194 89
Sent to State Treasurer, cash receipts of current year, . . . . .		43,545 07
Cash receipts on hand to be sent, . . . . .		8,887 81
Liabilities of 1903, paid this year, . . . . .		10,993 56
Total, . . . . .		\$264,363 86

## RESOURCES AND LIABILITIES.

*Resources.*

Cash on hand, . . . . .	\$8,887 81	
Bills receivable, . . . . .	4,466 90	
Unexpended appropriation for expenses, . . . . .	45,059 77	
Total resources applicable to ordinary expenses, . . . . .		\$58,414 48

*Liabilities.*

Salaries unpaid, . . . . .	\$3,269 21	
Miscellaneous bills (current expenses), . . . . .	13,781 60	
		\$17,050 81
Extraordinary expense, . . . . .		479 91
Total liabilities, . . . . .		17,530 72
Balance for the institution, . . . . .		\$40,883 76

## SUMMARY OF CURRENT EXPENSES FOR THE YEAR ENDING SEPT. 30, 1904.

Total expenditures for the year, . . . . .	\$114,161 61	
Unpaid bills, . . . . .	17,050 81	
		\$131,212 42
Deducting amount of sale of supplies to patients, . . . . .	4,628 05	
		\$126,584 37
Deducting further the increase of supplies on hand Oct. 1, 1904, . . . . .	1,459 47	
Total current expenses, . . . . .		\$125,124 90

Dividing this amount by the daily average number of patients, 257, gives an average annual cost of \$486.86, equivalent to an average weekly cost of \$9.36. Deducting from the total current expenses, \$125,124.90, the cash receipts from patients, \$45,752.45, gives \$79,372.45, the total current expense to the Commonwealth, which is equivalent to an average weekly cost of \$5.93.

The crematory provided for in 1903 has not yet been built. It seemed best to delay its construction until definite plans were made for the new heating plant. We have, therefore, at present under construction a most admirable brick building for the cremation of paper cuspidores and other infected material. This building is to be connected directly with the chimney of the boiler house, but entirely apart from that building. It is to be equipped with a brick furnace, will have its walls painted in oils, a cement floor, a connection with sewer, and will be well lighted on three sides.

We have completed this year six fire stops. These are built midway in the connecting corridors, extending through the walls and roofs of the corridors, are of brick with tinned doors, and are eminently satisfactory.

This year 58 patients have been supported in the sanatorium by cities and towns, by the Associated Charities of Boston and other cities, the Invalid Aid Society, and other charitable organizations. The Boston Association for the Relief and Control of Tuberculosis has rendered valuable assistance in tracing discharged patients and in many ways helping them to continue the sanatorium treatment in their homes. To these friends, and to all others who have assisted us in the work, we express our grateful acknowledgments.

In conclusion, I beg here to express my appreciation of the faithful services of the resident officers of the institution, the nurses, attendants and all other employees, many of whom were formerly patients.

Respectfully submitted,

WALTER J. MARCLEY.

## REPORT OF THE EXAMINING AND VISITING PHYSICIANS.

*To the Trustees of the Massachusetts State Sanatorium, Rutland, Mass.*

GENTLEMEN:— We append herewith the combined results in our separate departments for the year ending Sept. 30, 1904.

Whole number of patients discharged during the year, . . . . .	696
Number who remained only about one month, and whose cases are, therefore, not considered, . . . . .	120
Number taken into consideration in our report, . . . . .	576

Of the 120 cases which are not considered, the majority were patients with symptoms favorable for treatment, but who left for various reasons at or before the end of the month; sometimes because of urgent calls at home; often for unwillingness to conform to rules; at times for insubordination. A small minority were discharged because of increased evidence of rapidly advancing disease, which made a change imperative.

*Table of Results.*

Per Cent.	Result.	Incipient.	Moderately advanced.	Advanced.	Totals.
44.8	"Arrested," and "apparently cured," .	198	48	12	258
47.7	"Improved" (including all shades of improvement), . . . . .	53	104	118	275
7.4	"Not improved" (including four deaths), . . . . .	10	15	18	43
	Totals, . . . . .	261	167	148	* 576

\* Twenty of these only could be said to be somewhat doubtful cases of tuberculosis. The remainder were positively tubercular.

Of the incipient cases, 75.8 per cent. were "arrested" or "apparently cured."

Of the 576 patients, the average length of stay was 5½ months

Of the 576 patients, the number who gained weight was . . . . . 544

Average gain in weight of these was . . . . . 13½ pounds.

Of the 576 patients, the number who lost weight was . . . . . 30

Average loss of weight of these was . . . . . 4½ pounds.



*Comparison of Percentages in First, Second, Third, Fourth, Fifth and Sixth Years.*

	1898-99.	1899-1900.	1900-01.	1901-02.	1902-03.	1903-04.
Percent. of "arrested" and "apparently cured" cases, . . . . .	34.25+	42.35	46.12	48.31	48.97	44.8
Per cent. of all classes of "improved" cases, . . . . .	39.36+	44.70	47.64	44.51+	43.00+	47.7
Per cent. of "not improved" cases, . . . . .	26.04+	12.95	5.74	6.73+	7.90+	7.4

*Percentage of Incipient Cases arrested or apparently cured.*

	1898-99.	1899-1900.	1900-01.	1901-02.	1902-03.	1903-04.
"Arrested" or "apparently cured," . . . . .	64.60	72.90	73.00	72.00	72.60	75.8

In comparing the results obtained this year with those of former years, we may notice the significant fact that the percentage of *incipient* cases which have been discharged as "arrested" or "apparently cured" has steadily increased, a proof of the importance of sending cases early in the history of disease, instead of waiting until the symptoms become more marked.

It will be noticed that the percentage of "arrested" or "apparently cured" of the total number of cases is somewhat less this year than last, which, at first sight, would seem to be discouraging. When we study the facts, however, we find reason to be encouraged. The acts of the Legislature have twice increased the capacity of the sanatorium. In 1899 the capacity was 175 beds. The past year it has been 260. The new brick buildings provided for will bring the capacity up to nearly 400 beds. In order to fill the 260 beds available during the past year, a larger proportion of advanced cases has been admitted than before. The average length of stay, moreover, has for several reasons been lessened during the past year, with a consequent increase in the number of patients ad-

mitted. Both of these facts naturally tend to diminish the relative number of cases discharged as "arrested" or "apparently cured," although the actual number of such cases is larger than before (258). Taking these facts into consideration, therefore, we feel that there is every reason for encouragement, and that by properly meeting new conditions we can increase the amount of good done to the community by the sanatorium.

The recent act of the Legislature providing for additional brick buildings will increase the total number to nearly 400, as before stated. The work of the medical department is naturally made much more difficult. An increase in the number of intelligent assistants, therefore, is an absolute necessity, and a *sine qua non* of success.

The difficulty and great importance of the work ahead of us leads us to emphasize certain points which should be known not only to the laity but to our own profession.

During the past few years an astonishing change has come over the community in regard to the question of tuberculosis. Marked apathy has changed to extraordinary zeal, and, as is often the case, those who have been among the first to advocate certain measures which they know to be of great use, find themselves not infrequently obliged to take a rather conservative position, lest the often extravagant claims made by recent converts shall result only in a reaction of sentiment in the community, and a consequent unreasonable prejudice against methods of treatment which, beyond a shadow of a doubt in the minds of those who are best able to judge, are of infinite value to thousands of sufferers when rationally used.

This reaction is, to a certain extent, now showing itself in regard to the work at Rutland, and is largely due to the often extravagant claims made by recent converts to the "open-air treatment," who have only superficially studied the subject.

While warmly acknowledging what we owe to the press, and while not wishing to underrate its value in promulgating the ideas which are essential for the proper use of these methods, yet we feel compelled to say that the flaring and exaggerated statements which often appear in our daily papers of what has been accomplished at such institutions as Rutland

have often been such as to make “the judicious grieve.” Such exaggerations of true facts only serve to weaken the cause in the end, for the misguided individuals who rush for aid in the hope of healing a far-advanced process only meet with disappointment in the majority of cases. In their bitterness, they and often their friends denounce the whole system as a fraud, simply because they have been misled by the false statements of those who are not in authority, and in spite of the vain explanations of those in charge of the institutions.

Our own profession is often to blame in this particular, we regret to say. Greater caution than now should be used in speaking of a “cure,” before a number of months have passed, during which time the patient has remained well under ordinary conditions of life, after he has left a sanatorium. The often careless method of speaking of cases as “cured” when, after a stay of a few weeks, possibly months, the patients have the appearance of health only, is, on the face of it, with our knowledge of the disease, absurd, and is apt to bring discredit upon those who do their utmost to correct these false impressions. In this report it will be noticed that the terms “arrested” and “apparently cured” are used together. They simply represent our different expressions for what is virtually the same idea, viz., an outward appearance of health, with an apparent cessation of abnormal symptoms, which may or may not be permanent, and to prove which the test of time must be applied. In spite of these conservative terms statements to the effect that patients are discharged “cured” are continually put into our mouths by ex-patients and their friends, to the detriment, naturally, of the methods used when relapses have occurred.

In regard to the class of cases which are admitted to the sanatorium there exists a very mistaken idea, even among the profession. As our circulars announcing the wish of the trustees state that only incipient cases, or at least those susceptible of improvement, should be admitted, it is a very common idea that most of our cases have really few, if any, symptoms of active disease. This is the exact reverse of the truth, the fact being that really incipient cases form but a small percentage of those treated, the majority having well-marked symptoms,

many having advanced signs of disease in the chest. This being the fact, then, it speaks all the better for sanatorium treatment that we are able to accomplish as much as our statistics show.

When we state, as we are able to in recent years, that between 45 and 50 per cent. of all cases have left with the disease arrested, we are massing all our cases together. When we show that among the cases which seem to be really incipient between 70 and 80 per cent. leave with the disease arrested, it is only a proof of what we are constantly endeavoring to teach, viz., not to wait until the symptoms are well marked, but to send the patients at once, when the first symptoms appear. Until the profession learns this we are wasting valuable time; in spite of repeated requests to the contrary, however, patients far beyond the incipient stage of tuberculosis, and for whom there is little or no hope of anything other than possibly a temporary amelioration of symptoms, are often recommended by physicians.

Frequent and gratifying reports are received from the majority of patients who have regained their health at Rutland, most of them being active wage-earners and enthusiastic advocates of methods which they know to have been beneficial to them.

It is our constant endeavor to induce patients to seek employment which shall give them as much out-door life as possible. To help in this most important feature of the after-treatment of those who leave the sanatorium, the establishment of some bureau whose business shall be to find suitable places for ex-patients is most desirable, and would greatly aid us in our work.

In closing, we desire again to express our keen appreciation of the faithful and efficient work of our assistants, Dr. Henry B. Dunham, Dr. George N. Lapham and Dr. George W. Derrick. To Dr. Marcley, Miss Thrasher and the nurses we extend our thanks for their uniform courtesy and co-operation in our work.

Respectfully yours,

VINCENT Y. BOWDITCH.  
HERBERT C. CLAPP.



## LIST OF WAGES.

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Examining and visiting physicians (per annum), . . . . .	\$1,500 00
Superintendent and treasurer (per annum), . . . . .	2,500 00
Matron and superintendent of nurses (per annum), . . . . .	1,200 00
Assistant physician (per annum), . . . . .	1,000 00
Assistant physician (per annum), . . . . .	900 00
Assistant physician (per annum), . . . . .	500 00
Farmer (per annum), . . . . .	800 00
Bookkeeper (per annum), . . . . .	780 00
Dietitian and steward (per month), . . . . .	65 00
Nurses, day (per month), . . . . .	\$15 to 40 00
Nurses, night (per month), . . . . .	35 and 40 00
Record clerk (per month), . . . . .	30 00
Stenographer (per month), . . . . .	30 00
Clerk's assistants (per month), . . . . .	\$18 and 20 00
Supervisor, male (per month), . . . . .	50 00
Supervisors, female (per month), . . . . .	\$13 to 25 00
Engineer and fireman (per month), . . . . .	25 and 35 00
Engineer and fireman (per month), without living, . . . . .	50 and 60 00
Fireman's helper (per month), . . . . .	10 to 25 00
Cook (per month), . . . . .	85 00
Baker (per month), . . . . .	\$60 to 70 00
Carpenter (per month), . . . . .	70 00
Night attendant (per month), . . . . .	\$15 to 25 00
Head laundress (per month), . . . . .	25 00
Laundry help, male (per month), . . . . .	25 00
Laundry help, female (per month), . . . . .	\$12 to 20 00
Ward help, male (per month), . . . . .	15 00
General work, male and female (per month), . . . . .	\$10 to 25 00
Storeroom man (per month), . . . . .	25 to 30 00
Pharmacist (per month), . . . . .	10 and 12 00
Kitchen help, male (per month), . . . . .	15 to 32 50
Coachman (per month), . . . . .	25 00
Teamsters (per month), . . . . .	\$25 and 36 00
Farm help (per month), . . . . .	5 to 35 00
Farm help, without living (per day), . . . . .	1 50 and 1 75
Mail carrier (per month), . . . . .	5 00

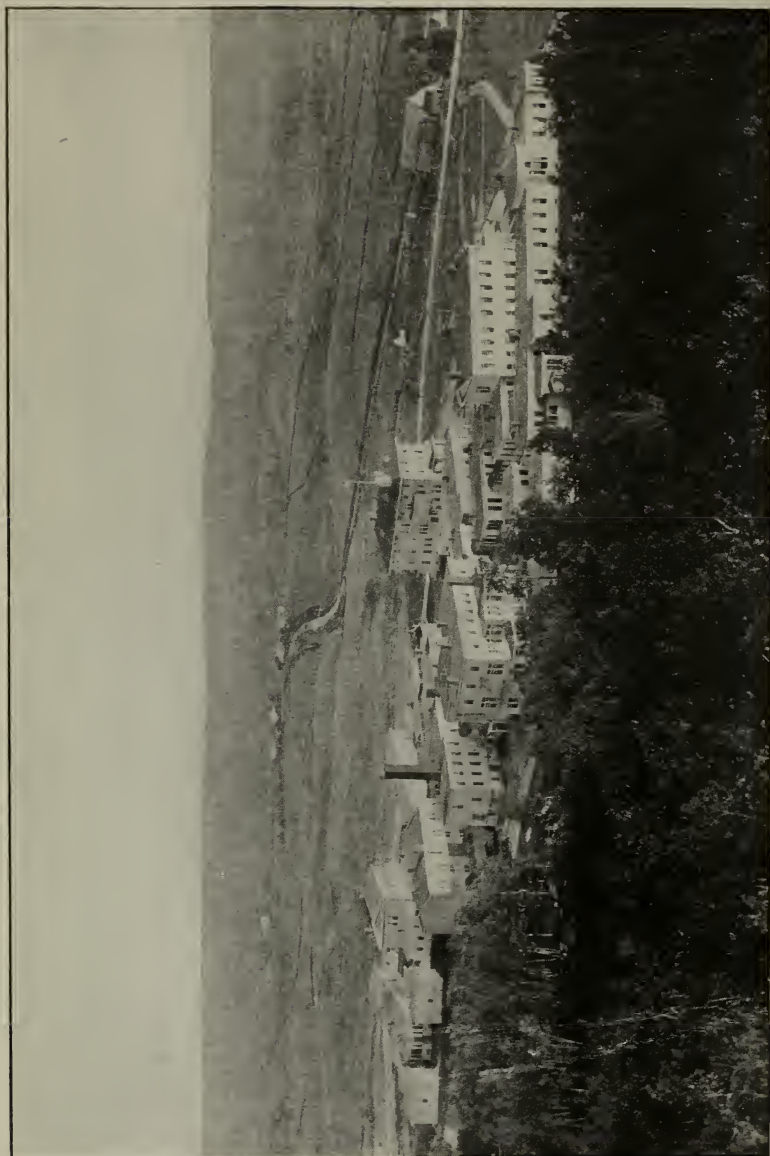












VIEW OF THE SANATORIUM, FROM THE WATER TOWER NORTHWEST OF BUILDINGS.